

Shenzhen Tian wei xun wireless technology co.,ltd.

## Product performance and specification

CUSTOMER NAME:

康智汇

PRODUCT NAME:

OdinSmart

PCBA NO.

Client	Admit manufacturing party		
Customers confirmation	Quality department	R&D	Approval
		ME: RF:	
<b>Date:</b>	<b>Date: 2022-08-31</b>		

Shenzhen Tian wei xun wireless technology co.,ltd.

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# Shenzhen Tian wei xun wireless technology co.,ltd.

<b>Issuer</b>	XianMing Liao	<b>Product performance and specification</b>	VER	V0
<b>Design department</b>	R&D center		DATE	2022-08-31

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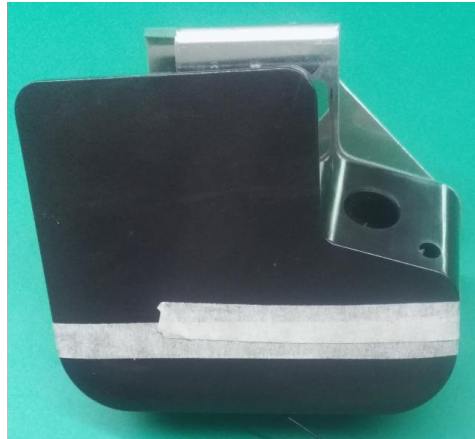
### Requirements on confidentiality of information

Shenzhen tianweixun wireless technology CO., LTD.Has proprietary technology and is not allowed to disclose the information to any company or individual without the prior written consent of the company.

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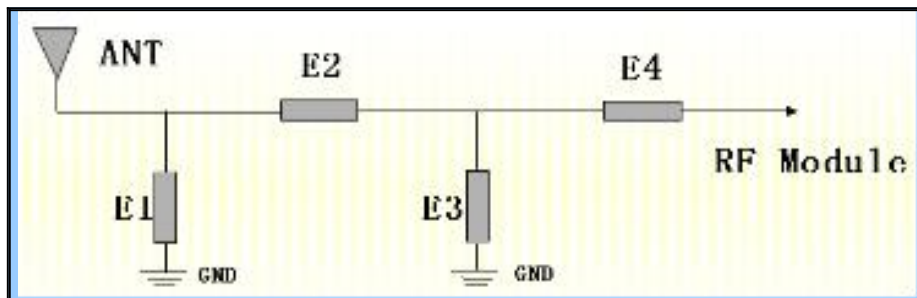
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## 1.1 Project photo



OdinSmart

### 1.1.1 Antenna Matching Circuit



Element	Value	Value
E1(0402)	--	--
E2(0402)	--	--
E3(0402)	--	--
E4(0402)	--	--

Matching mark: No change in matching circuit.

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## 2. 1 Product design purpose

To standardize the testing method of the product specification of communication terminal antenna produced by shenzhen tianwei xun wireless technology co., LTD., to avoid errors caused by different testing conditions and method.

## 3. 1 Antenna

### 3. 1. 1 Antenna electrical specification and material

This report mainly provides the test status of the structural performance parameters of OdinSmart antenna



Photo of antenna designed by tianweixun

### 3.1.2 ANTENNA MOLD:

Antenna category: PIFA

Antenna material: FPC

### 3. 1. 3 ANTENNA DSINGN FREQUENCY BAND:

The antenna frequency band is 2400MHz~ 2500MHz

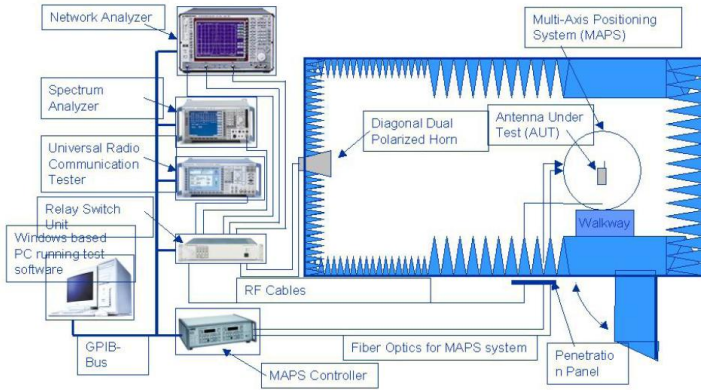
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### 3.1.4 THE ANTENNA IS TEST IN ETS-SG24 SYSTEM 3D CHAMBER



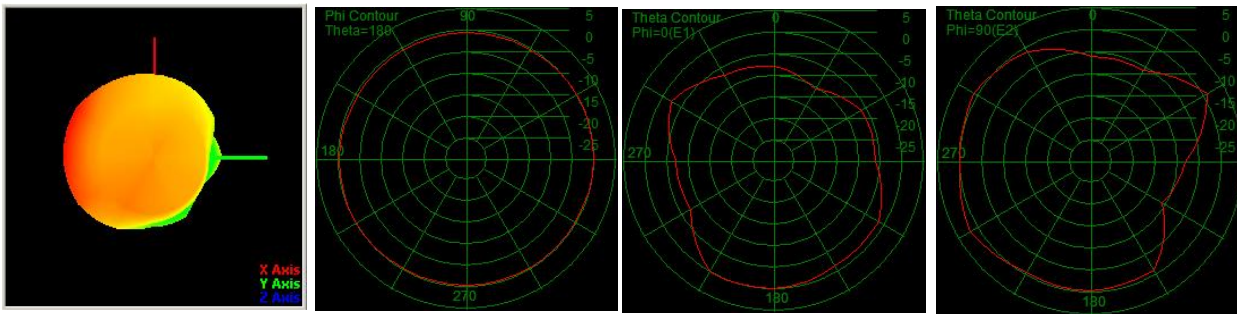
picture (1) ETS-SG24 SYSTEM

picture (2) The product is placed in the 3D test device

3D data designed by tianweixun (Gain 、 Efficiency and pattern ):

Test Point ID	Freq. (MHz)	TRP (dBm)	Gain (dBi)	Directivity (dBi)	Efficiency (%)
1	2400.0	2400.00	1.79	4.66	51.6%
2	2405.0	2405.00	1.85	4.72	51.6%
3	2410.0	2410.00	2.13	4.85	53.5%
4	2415.0	2415.00	2.24	4.91	54.1%
5	2420.0	2420.00	2.34	5.03	53.8%
6	2425.0	2425.00	2.26	5.09	52.1%
7	2430.0	2430.00	2.36	5.12	53.0%
8	2435.0	2435.00	2.45	5.17	53.5%
9	2440.0	2440.00	2.45	5.22	52.8%
10	2445.0	2445.00	2.54	5.23	53.8%
11	2450.0	2450.00	2.62	5.27	54.3%
12	2455.0	2455.00	2.62	5.26	54.5%
13	2460.0	2460.00	2.72	5.29	55.3%
14	2465.0	2465.00	2.72	5.30	55.3%
15	2470.0	2470.00	2.71	5.40	53.9%
16	2475.0	2475.00	2.80	5.48	53.9%
17	2480.0	2480.00	2.97	5.60	54.6%
18	2485.0	2485.00	3.02	5.70	53.9%
19	2490.0	2490.00	3.11	5.79	54.0%
20	2495.0	2495.00	3.45	5.90	56.9%
21	2500.0	2500.00	3.53	5.98	56.9%

2400MHZ:



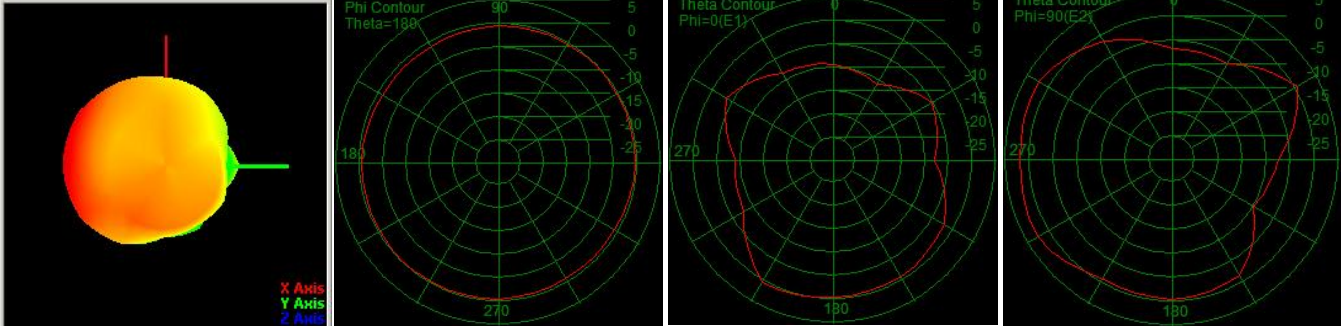
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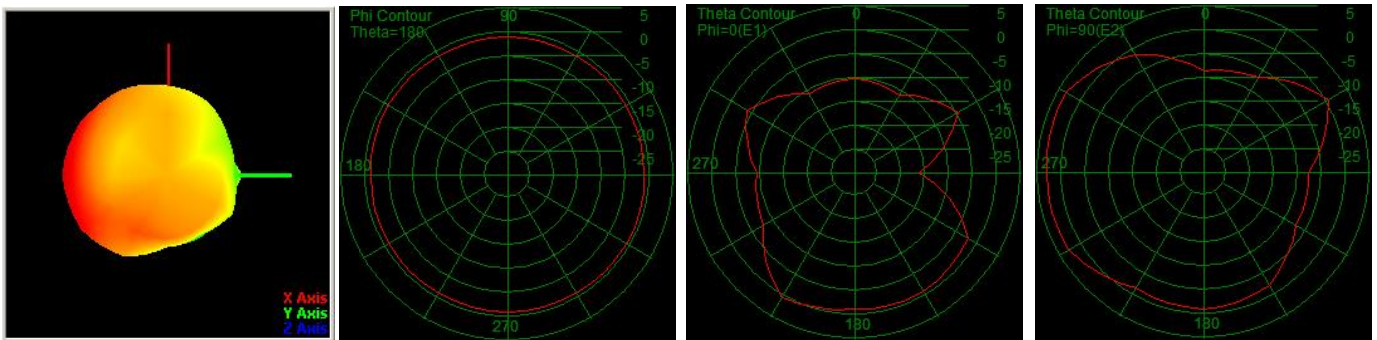
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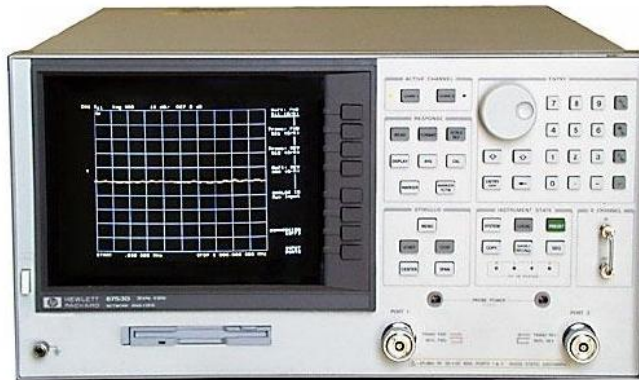
2450MHZ:



2500MHZ:



### 3.1.5.ANTENNA PASSIVE VSWR AND RETURN LOSS

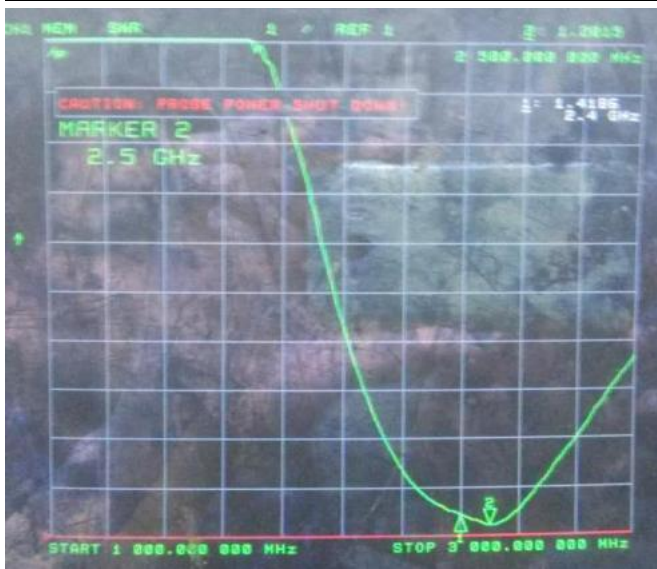


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(VSWR)



(Return loss)

3.1.6 ANTENNA ACTUAL TEST RESULTS (Active)

Antenna Performance Table							
	Channel No.	Max(dBm)	TRP (dBm)	Whole Band TRP (dBm)	Min(dBm)	TIS (dBm)	Whole Band TIS (dBm)
WiFi	2.4G	1	20.12	14.65	-87.23	-81.87	
		6	19.71	14.23	-86.85	-81.75	
		11	18.88	13.69	-86.76	-81.66	

4.1 DRAWING OF PRODUCT DESING

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日期	修改内容	版本	备注

**要求:**

1. 打“★”为严格控制尺寸;
2. 焊点表面光滑饱满;
3. 表面无油污, 杂质, 毛刺等;
4. 产品必须符合ROHS的要求。

序号	名称	描述	数量	备注
1	端子线	Φ1.13*70/黑色线材/1代端子	1	
2	FPC	35.84*12mm/黑色/字符白色	1	

<b>TWX</b>	深圳市天威讯无线技术有限公司	
ShenZhen	TianWeiXun	OdinSmart
未注公差	机种	品名
0.10 ±0.10	WIFI天线	WIFI天线
10.20 ±0.12	料号	日期
20.40 ±0.15	材质	2022.06.10
40.50 ±0.20	表面处理	设计
位置	外观处理	审核
		射频
		确认
		单位 mm
		比例 FIT
		版本 R:A

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